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Ljiljana Prša

CONSTRUAL OF SARCASM IN *THE BIG BANG THEORY*

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Mentor: dr. sc. Mateusz-Milan Stanojević

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UNIVERSITY OF ZAGREB
FACULTY OF HUMANITIES AND SOCIAL SCIENCES
Department of English

Ljiljana Prša
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Advisor: Assistant Professor Mateusz-Milan Stanojević

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Abstract

Sarcasm is commonly defined as “the use of remarks that clearly mean the opposite of what they say, made in order to hurt someone's feelings or to criticize something in a humorous way” (online Cambridge Dictionary, 2019). As such it is often defined as hostile humor and mainly referred to in a negative context. The aim of this thesis is to show that sarcasm is widely used today for other purposes other than strictly as a mechanism to criticize something or somebody. To support the objective of this thesis, examples from the first two seasons of the sitcom *The Big Bang Theory* have been selected for analysis. Considering that in order to understand sarcasm one has to think beyond the literal meaning of an utterance, sarcasm is often left undetected, which is why the importance of the implicit part of an utterance is discussed in this paper. In fact, there are number of factors that are crucial for sarcasm detection, such as mutual background knowledge between the speaker and the hearer, difficulties comprehending other people's intentions, emotions or attitudes, understanding non-linguistic signs such as intonation and facial expressions, and the context – which is regarded as a psychological construct in the form of hearer's assumptions from the perspective of Relevance Theory. Sperber and Wilson's Relevance Theory (1986) represents one of the groundbreaking works in pragmatics because it introduced cognitive linguistics into pragmatics and, among other things, in terms of humor it recognized the communicative intention of humor and the importance of the relationship between the individual and the context.

Key words: sarcasm, Relevance Theory, *The Big Bang Theory*, context

Sažetak

Sarkazam se obično definira kao “upotreba primjedbi kojima je pravo značenje suprotno od onog doslovnog, s ciljem da se povrijede nečiji osjećaji ili kritizira nešto na šaljiv način” (online Cambridge Dictionary, 2019). Kao takav često se definira kao ‘neprijateljski humor’ i uglavnom se spominje u negativnom kontekstu. Cilj ove teze je pokazati da se sarkazam danas široko koristi i u druge svrhe, osim izričito kao mehanizam za kritiziranje nečega ili nekoga. Kako bi se potkrijepio cilj ove teze, za analizu su odabrani primjeri iz prve dvije sezone TV serije Teorija Velikog Praska. S obzirom da je za razumijevanje sarkazma potrebno razmišljati i izvan doslovnog značenja rečenice, često dolazi do nerazumijevanja sarkazma, zbog čega se u ovom radu raspravlja o važnosti implicitnog dijela sarkastičnih izjava. Naime, postoji niz čimbenika koji su ključni za otkrivanje sarkazma, kao što su isto pozadinsko znanje između govornika i slušatelja, poteškoće u razumijevanju namjera drugih ljudi, emocija ili stavova, razumijevanje paralingvističkih i ekstralingvističkih znakova kao što su intonacija i izraz lica, i kontekst - koji se, iz perspektive teorije relevantnosti, smatra psihološkim konstruktom u obliku slušateljevih pretpostavki. Teorija relevantnosti (Sperber i Wilson, 1986.) predstavlja jedan od temeljnih radova u pragmatici jer je uvela kognitivnu lingvistiku u pragmatiku i, između ostalog, u kontekstu humora prepoznala komunikativnu namjeru humora i važnost odnosa između pojedinca i konteksta.

Ključne riječi: sarkazam, teorija relevantnosti, Teorija Velikog Praska, kontekst

1. Introduction

This thesis analyzes the motives for sarcasm use and the functions it serves in the popular sitcom *The Big Bang Theory* from the point of view of linguistics and offers a pragmatic analysis of the examples from the sitcom focusing on the ways in which context contributes to meaning. In this thesis, context is regarded from the perspective of Relevance theory, according to which, context is constructed on the basis of hearer's assumptions about the world rather than the physical environment surrounding the utterance (Sperber and Wilson, 1986).

The aim of this thesis is to show that, contrary to popular belief, sarcasm is not principally used in a negative context and is often used for various other purposes rather than as a mechanism of ridicule and mockery. For this purpose, examples from the first two seasons of the sitcom are analyzed and grouped in five categories: sarcasm as a form of mockery, sarcasm as a tool for expressing irritation, sarcasm as a mechanism for pointing out the obvious or the absurd, sarcasm as a mechanism for expressing false gratitude or excitement and using sarcasm for humorous purposes.

The thesis starts with an overview of theoretical issues, including the Cooperative Principle, Relevance theory, Mention theory and Pretense theory. In chapter four, the importance of the implicit in humorous utterances is explained and the knowledge the hearer needs to resort to in order to discern the implicit part of an utterance. Chapter five deals with social functions of humor such as to 'save face' by dissociating oneself from the literal meaning of an utterance. Chapter six provides a theoretical overview of sarcasm, its definition and usage, while section seven provides an analysis of the examples found with a discussion, which is followed by the conclusion.

2. The Cooperative Principle

In his work *Logic and Conversation*, Grice (1975) talks about the ways human interaction is carried out. Grice states that “our talk exchanges do not normally consist of a succession of disconnected remarks, and would not be rational if they did. They are characteristically, to some degree at least, cooperative efforts; and each participant recognizes in them, to some extent, common purpose or set of purposes, or at least a mutually accepted direction” (Grice, 1975: 307). He proposes a general principle which he calls the Cooperative Principle and which the participants in a talk exchange should follow in order to make their contributions understandable. He developed this theory based on his belief that successful communication is based on cooperation between interlocutors in an attempt to construct meaningful utterances (Hadi, 2013).

Grice formulates his general principle as follows: “make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice, 1975: 307). According to Grice (1975), this general rule describes what participants expect in a conversation from their interlocutor because a talk exchange represents mutual cooperation invested by the participants of the conversation to meet a mutually accepted purpose. Grice defined the Cooperative Principle on the relationship between conversation and logic (Hadi, 2013). He believed that people communicate in a rational and logical way because it is how we are thought to behave from early age, therefore it comes naturally.

Furthermore, Grice (1975) divides the Cooperative principle into four categories or maxims; these are Quantity, Quality, Relation and Manner. The first category refers to the quantity of information one provides in a talk exchange and it is clarified with the two following submaxims:

1. Make your contribution as informative as is required (for the current purposes of the exchange).
 2. Do not make your contribution more informative than is required.
- (The second maxim is disputable; it might be said that to be overinformative is not a transgression of the CP but merely a waste of time. However, it might be answered that such overinformativeness may be confusing in that it is liable to raise side issues; and there may also be an indirect effect, in that the hearers may be misled as a result of thinking that there is some particular point in the provision of the excess information. (Grice, 1975: 308)

It can be observed that in order to act according to the Cooperative principle, a person has to deliver sufficient information for the interlocutor to decipher the message; however the

amount of information should neither be too much nor too little. If there is not enough information, the interlocutor has a problem decoding the message and if there is too much information, the interlocutor may find the message irrelevant or not worth the decoding process.

The second category is Quality which is described with the supermaxim - “Try to make your contribution one that is true” (Grice, 1975: 308) and two submaxims “1) do not say what you believe to be false, 2) do not say that for which you lack adequate evidence” (Grice, 1975: 308). Some maxims are, according to Grice (1975), more pertinent than others; the category of Quality, for example, saying what one believes to be true, is the foundation on which other maxims are based. The third category, Relation, Grice describes with a concise submaxim ‘Be relevant’. However, there are a couple of issues concerning this maxim such as “questions about what different kinds and focuses of relevance there may be, how these shift in the course of a talk exchange, how to allow for the fact that subjects of conversation are legitimately changed, and so on” (Grice, 1975: 308).

The last category that defines the Cooperative Principle, Manner, refers to *how* something is said. It is defined with a supermaxim ‘be perspicuous’ and the following maxims: “1) avoid obscurity of expression, 2) avoid ambiguity, 3) be brief (avoid unnecessary prolixity) and 4) be orderly” (Grice, 1975: 308) There are also other maxims that Grice lists, such as social, moral or those that regard politeness. All conversational maxims are observed by the participants in a talk exchange and are expected to serve the purpose of the talk exchange.

3. Relevance theory

Sperber and Wilson (1986) proposed their own theory of interpreting utterances called the Relevance theory inspired by the work of Paul H. Grice. They propose a fundamental supermaxim of relevance according to which people “can consistently distinguish relevant from irrelevant information, or in some cases, more relevant from less relevant information” (Sperber and Wilson, 1986: 119). According to Sperber and Wilson (1986) people differentiate relevant from irrelevant information based on their intuition which is influenced by the context. The mental processes that occur when hearers are processing new information happen without them being conscious of them and are combined “with an adequately selected

set of background assumptions – which then constitutes the context – in the memory of the deductive device” (Sperber and Wilson, 1986: 138).

From the work of many linguists and pragmatists, we now know that communication is achieved by coding and decoding messages. According to Sperber and Wilson (1986), a message or a code needs to hold information which allows the hearer to infer the meaning and decode the message. However, apart from the explicit information in the code, the hearer resorts to his assumptions which constitute the context. In this sense, what is meant by ‘context’ is not the physical environment of the interaction but “a psychological construct, a subset of the hearer’s assumptions about the world. It is these assumptions, of course, rather than the actual state of the world, that affect the interpretation of an utterance” (Sperber and Wilson, 1986: 16). These assumptions are based on the general knowledge of the world, beliefs, expectations, perception, experience etc., and they differ from one individual to another. However, many people share some or part of these characteristics which Sperber and Wilson (1986) call *a mutual cognitive environment*. In this mutual cognitive environment, the assumptions made are obvious for both the hearer and the speaker.

The main idea for Sperber and Wilson (1986) is that their principle of relevance is the key to understanding how inferences work in communication. Their belief is based on the idea that our ostensive behavior, i.e. direct, demonstrative behavior “carries a guarantee of relevance, and that this fact – which we will call the principle of relevance – makes manifest the intention behind the ostension” (Sperber and Wilson, 1986: 50). It is natural for hearers to focus their attention on what is relevant to them and create assumptions or beliefs by deducing from the information provided to them. However, sometimes, if the speaker’s attitude is not explicitly displayed, the hearer has to resort to other clues and these are paralinguistic indications such as tone and pitch of voice, facial expressions, gestures and body language. According to Sperber and Wilson (1986) this is especially the case with the use of irony and sarcasm in which cases the hearers rely on their assessment of the speaker’s attitude towards the utterance or opinion expressed.

3. 1. Relevance theory and humorous utterances

Many authors have presented their theories drawing on Relevance theory. According to some of them, the context that is presented at the beginning of an utterance is opposed or contrary to the assumptions given at the end of the utterance, also called a trigger, which leads to a paradox that actually holds the humorous part of an utterance (Cursino-Guimarães, 2014). The paradox is inevitable and not hard to grasp because the proposition that was omitted is the one that comes to mind most naturally and also because the speaker paved the way for the conclusion to be made by the hearer. The hearer follows the logic of the proposition that was omitted and is led to the paradox which makes it relevant to the hearer.

The use of logical reasoning (the enthymeme) forces the interpretation to this paradoxical conclusion and gives relevance to the paradox, because it makes the most natural conclusion to the assumptions presented. The paradox causes a shock, precisely because it results of a logically-driven reasoning in interpretation: it is an explanation, but it is paradoxical. The shock seems to result from the fact that the reader needs to fuse two ideas, building a bisociation¹ to interpret” (Cursino-Guimarães, 2014: 558).

Therefore, according to Cursino- Guimarães (2014) it is the paradox that is humorous in the utterance and it is not meant to be resolved because the ideas that are opposed in the paradox cannot be made coherent. Hearers always search for coherence in communication, but in sarcastic utterances the ideas that are incompatible are combined together and since it is the obvious solution, often unreasonable, this results in a surprise effect which leads to laughter.

When it comes to sarcastic irony, the hearer presupposes that the speaker’s attitude towards the utterance holds relevant information and that, by interpreting it, relevance will be achieved. “Relevance Theory supports the notion that the speaker deems any additional processing used to resolve a sarcastic utterance worth the effort when the utterance is chosen” (Peters, 2013: 17). In other words, the speaker opts for sarcasm as a mechanism for a reason, keeping in mind that the interlocutor needs to make additional effort to get to the real meaning, but that ultimately this effort is worthwhile.

¹ Definition of bisociation : the simultaneous mental association of an idea or object with two fields ordinarily not regarded as related (Merriam-Webster dictionary)

3. 2. Mention theory and Pretense theory in ironic utterances

Grice (1975) proposed a theory or a model for analyzing ironic statements known as the Meaning – Inversion model according to which by inverting the literal interpretation we come to understand the meaning of the utterance. As a response to Grice's model, two theories emerged – Mention theory which is regarded as a part of the Relevance theory and Pretense theory. From the perspective of the traditional theory of irony, it was considered that the speaker uses figurative meaning which is just the opposite of the literal meaning. This theory, however, seemed insufficient for Sperber and Wilson (1981) who proposed an alternative perspective, the Mention theory.

According to the Mention theory (Jorgensen et al., 1984) Grice's model is insufficient by stating that the speaker conveys figurative meaning opposite to the literal meaning, from the Mention theory perspective the speaker mentions the literal meaning which echoes his attitude towards it. According to this theory, the speaker mentions the literal meaning, but the real meaning is not simply what is opposite from it, rather it is the literal meaning combined with the speaker's attitude towards the literal meaning he expressed. The literal meaning is, according to this theory, mentioned by the speaker as a means for expressing their attitude, mainly that of disapproval or ridicule.

Humorous utterances represent mentions of other utterances, while “mention is intended in the philosophical sense which distinguishes between the use of a word and its mention” (Attardo, 1994: 277). Therefore, from the perspective of the Mention theory, jokes do not really violate Grice's maxims because if they did then humorous interactions would not result in successful interpersonal communication, and we know that they do. Most people engage in humorous communicative exchange without difficulties and the purpose of the exchange is fulfilled, therefore it stands to reason that jokes in fact do not violate the Cooperative Principle.

Pretense theory argues that “by speaking sarcastically, one pretends to be an unwise speaker addressing a naive audience but intends that the hearer will see through the pretense to understand the speaker's true attitude toward the fictional speaker and the belief expressed (H. H. Clark & Gerrig, 1984 in Olsen, 2015). The Pretense theory builds on Grice's belief, which he did not entirely elaborate, that the speaker who opts for irony is in fact pretending.

Sarcastic utterances are used by speakers who pretend to have poor judgment, i.e. they pretend to be unwise but expect the hearers to understand them based on certain common knowledge. However, as opposed to the Meaning – Inversion model, Pretense theory suggests that the literal interpretation holds the real meaning but that the hearers are able to decipher, due to common ground, that the speaker has a negative attitude towards the utterance (Olsen, 2015).

It can be noted that this theory also takes into account the role of context and mutual knowledge. Context and mutual knowledge are important factors to consider when interpreting sarcasm because it is a form of wit used more among friends than strangers (Caucci & Kreuz, 2012 in Olsen, 2015). The hearer picks up cues either from context or mutual knowledge to interpret and identify sarcastic utterances. Unlike a sincere utterance, a sarcastic utterance holds an attitude or belief by the speaker and this attitude is disagreement with the literal meaning of the utterance. The question raised by many is why a speaker would choose sarcasm as a mode of communication; the answer most probably lies in the fact that sarcasm best expresses the dissociative attitude of the speaker towards the literal interpretation of the utterance while serving as a useful tool for saving one's face. Also, sarcasm is more personal, it holds more emotion, it is especially effective in criticizing and it is often regarded as a witty or funny way of communicating.

4. The importance of the implicit in humorous utterances

Grice (1975) coined the term 'implicature' which denotes what a speaker suggests but does not say explicitly in the utterance, i.e. something that is implied. To be able to discern the implicit in an utterance, the hearer may need to detect non-linguistic cues and possess background and contextual information in order to infer the best explanation. Implicatures arise voluntarily in a discourse, the hearer has to infer why the speaker said something in the way they did, i.e. why the speaker opted for exploiting the maxims and thus violating the rational talk exchange dictated by the Cooperative Principle. Grice (1975) offers examples for the exploitation or violation of the maxims; for the purpose of this paper it is important to mention that he lists irony, metaphor, meiosis and hyperbole as violations of the maxim of Quality.

Sperber, Jorgensen and Miller (1984) asserted that, in order to comprehend the implicit in the meaning, the hearer needs to be able to pragmatically analyze the literal meaning, the context and the speaker's intentions. Mainly, the context and the speaker's tone of voice, for example a doubtful or scornful tone of voice, give clues to the hearer about the speaker's attitude. The speaker then, according to the Mention theory, echoes the literal meaning and expresses their opinion towards it, this is defined as *echoic mention*. Therefore, it is implied that the hearer has sufficient information about the speaker and the context from which they can deduce speaker's intentions and attitude towards the echoed utterance.

It has been argued that if the joke/humorous utterance needs to be explained to be understood, it loses its humorous effect, this is because the implicit part of the humorous utterance also holds important information for the joke to function. More precisely, Grice's maxim of Quantity needs to be violated and the hearer has to make cognitive effort to resolve the implicit part of the utterance (Attardo, 1994). "The speaker is required, per Grice's maxims, to provide "enough" information for the text to be processed without problematic falls into ambiguity" (Attardo, 1994: 291). In other words, even though Grice's maxim of quantity is violated, the utterance needs to hold enough information for the hearer to be able to deduce from the context or background information what is implicit in the utterance without straying from the topic or breaking the communication flow.

5. Social functions of humor

According to Tannen (1984 in Attardo, 1994), every person has a speaking style with distinctive use of humor which affects how other people perceive their whole communicative image. "As a matter of fact, the use of humor in conversation is found to enhance its "memorability" and in general to "stand out" (Tannen, 1984: 132 in Attardo, 1994: 318). In Tannen's (1984 in Attardo, 1994) opinion, people can dissociate themselves as speakers from their utterances by using exaggerations for example. Similarly, Attardo (1994) sees that people can separate themselves from their literal utterances by using different styles or registers: "by affecting a style (or register) different from one's own, and/or inappropriate to the situation, one may successfully convey the implication that one "disagrees" with what one is saying, or in other words, that one does not endorse the literal interpretation of his/her utterance" (Attardo, 1994: 317). This reasoning supports the Mention theory in the way that

an interlocutor merely mentions the literal meaning but dissociates himself from it, i.e. his attitude towards the literal meaning is different than the one uttered.

According to Meyer (2000) humor is regarded as an interesting subject for analysis to many scholars because of its powerful effect in social relationships and in communication in general. Although analyzing it is a bit contradictory because humorous utterances lose their purpose, or humorous effect when explained, humor still represents an interesting social phenomenon. Meyer (2000) puts emphasis on the receiving end of humorous utterances, the audience, because the audience interprets the humorous utterance and the outcome affects the social function humor will achieve. An important requirement for the hearer to be able to understand humor is to understand, i.e. have the mental capacity to understand or note, normal utterances in order to understand what is different in communication when non-humorous and humorous utterances appear.

Attardo (1994) distinguishes between primary and secondary functions of humor in conversation. "Primary functions of humor in conversation are effects that the speaker may (wish to) achieve directly by using humorous segments or texts in his/her discourse. Secondary functions of humor are effects that are achieved either indirectly or without the knowledge or intent of the user" (Attardo, 1994: 322). As previously mentioned, our use of humor defines how other people perceive our overall communicative image. We are talking then about the social functions of humor, more precisely about the effects of humor on the communicative process which Attardo divides in four classes: "1. Social management, 2. Decommitment, 3. Mediation, and 4. Defunctionalization" (Attardo, 1994: 323).

For the purposes of this paper, the function of Decommitment will be analyzed. Decommitment deals with facilitating social interactions similarly to the social management function, but with the emphasis being on "probing and salvaging, i.e., the speaker may probe the hearer(s) reactions to a behavior that he/she is uncertain will be met with approval by engaging in the behavior with overt signs of non-seriousness or the speaker may salvage a situation that is becoming socially unpleasant by decommitting him/herself" (Attardo, 1994: 325). In other words, the decommitment function serves speakers to 'save face' by being able to draw back from their utterance if it was perceived as harmful. Similarly, as a device, humor can 'save face' for the speaker by avoiding potentially humiliating situations or to criticize someone without being direct because the speaker is 'guarded' by humorous interaction.

Although, if the hearer interprets what has been said at face value, the speaker could face consequences.

Humor also depends on the situation: what may be considered humorous in one situation may not seem as humorous in another with the same audience and context. Also, whether the utterance will be regarded as humorous or not depends on the audience, to a particular audience the humorous utterance will be registered as such and to others perhaps not. Therefore, the outcome or success of the humorous intent depends both on the situation and the audience it is directed at (Meyer, 2000). The underlining factor needed, however, in all situations is, as it seems, the element of surprise or in ironic and sarcastic utterances the paradox found in the implicit part of the utterance.

6. Sarcasm

The Cambridge English Dictionary defines sarcasm as “the use of remarks that clearly mean the opposite of what they say, made in order to hurt someone's feelings or to criticize something in a humorous way” (online Cambridge Dictionary, 2019). Usually, when we think of sarcasm we think of the opposition or contrast between what is said and what is meant. The hearer's task is to ascertain what the speaker meant with the implicit language used and why he chose to say it implicitly rather than straightforwardly, i.e. literally. An important factor in detecting sarcasm is shared, mutual background knowledge. Problems arise when the background knowledge or context is not shared by both the hearer and speaker. However, “what may seem explicit and obviously clear to the speaker may not be so for the hearer” (Davies, 2000: 6). It can be argued that people can have the same background knowledge but still have different understandings, opinions or views about something. Therefore, even though the context is shared by participants, opinions can vary and ultimately individuals come to conclusions based on personal beliefs and attitudes.

Besides criticism, sarcasm is usually accompanied by contempt and disapproval. People opt for sarcasm out of several reasons such as to make the criticism seem polite (Brown and Levinson, 1978 in Shamay-Tsoory et al., 2005), to make the criticism seem less aggressive and to create a humorous atmosphere (Dews and Winner, 1995 in Shamay-Tsoory et al., 2005). Sarcasm is often left undetected for which there are a few possible reasons. One of the explanations is that some people have difficulties comprehending other people's intentions,

emotions or attitudes; another explanation is provided by the Relevance theory which suggests that understanding ironic utterances requires a shared knowledge between the listener and the speaker.

It appears, however, that in many situations it is demanding to expect the hearer to decipher speaker's intentions based on common knowledge or context, on many occasions the hearer needs to make too much effort to get to a conclusion, which then violates the purpose of the speech exchange. Also, the speaker may not always take in consideration the hearer's needs during the conversation, but this can then be modified by offering cues, such as stronger accentuation for example, to emphasize important information (Peters, 2013).

It should be noted that context is a concept which is also individually interpreted and that there are many factors to be considered, especially in terms of social settings, which individuals perceive differently. This can easily lead to different conclusions, misunderstandings and failure to detect sarcasm (Rockwell, 2002 in Peters, 2013: 7). Therefore, in order to have a successful speech exchange, the hearer needs to be able to interpret, resolve promptly any ambiguities and make the best use of the information provided by the utterance and the speaker.

Besides psycholinguistic approaches to understanding ironic (sarcastic) utterances, under which fall those by Grice and Sperber and Wilson, recent approaches include neuropsychological research which puts emphasis on understanding social cues such as reading other peoples' attitudes, opinions, emotions, etc. which is referred to as the theory of mind. This theory is supported by the fact that children have difficulties understanding ironic utterances because they have difficulties understanding other peoples' mental states and intentions. Research done by neuropsychologists shows that people who have trouble detecting sarcasm have impaired social cognition, i.e. they do not have success in 'reading' speaker's attitude (Shamay-Tsoory et al., 2005).

Researchers have also found that sarcasm detection is harder for children, from which they concluded that this mechanism develops with age (Rockwell, 2000; Cheang & Pell, 2008; Bryant & Fox Tree, 2002 in Peters, 2013). This is because children are direct in their utterances, they are not subtle or discrete for example, they are thought to behave or speak more subtly, i.e. not to always say what they mean because of certain social norms. Adults, however, choose their words more carefully, having in mind the context, social expectations,

the interlocutor, etc. Therefore, because sarcasm is based on indirectness and subtlety, children have difficulty understanding it.

The question that arises when investigating sarcasm is why people opt for sarcasm instead of the literal meaning. Some authors believe that although sarcasm can often affect interpersonal relations negatively, it “can be more humorous and memorable than direct communication” (Huang et al., 2015). The criticism directed with sarcastic utterances can be less harmful if there is a trust factor between the speaker and the hearer, meaning that the interpersonal relations aren’t affected negatively. Instead, in this type of a relationship, i.e. in a familiar environment, choosing to express oneself with sarcasm is regarded as creative and beneficial for increasing abstract thinking (Huang et al., 2015).

According to Peters (2013), “sarcasm is a device chosen by speakers because it serves the discourse function with the best return of effort for the current context” (Peters, 2013: 10). Speakers choose sarcasm as a tool or device for a reason, they can either send their message sarcastically or literally. Therefore, it depends on the context what mechanism the speaker will choose. Echoic Reminder theory suggests that speakers choose sarcasm mainly to point out that a social norm has been violated. For example, when someone comments on a colleague who is always late: ‘He sure is punctual’, the speaker is obviously being sarcastic, because the person in question is never punctual, and is pointing out that his behavior, being late, is not acceptable (Peters, 2013).

Sarcasm can also initiate conflict. As mentioned, sarcasm is a form of verbal irony and as such it represents the opposite of what is literally stated but with a dose of disapproval, criticism or scorn which is why it is often classified as hostile humor. Therefore, it is no wonder that on some occasions sarcasm can initiate conflict. Recipients may agree that the sarcastic utterance directed at them is humorous but still feel criticized and offended (Huang et al., 2015). However, interpersonal trust plays a vital role in whether the hearer will regard the sarcastic utterance as a serious criticism or as a humorous remark with no ‘real’ criticism behind it.

It should be noted that sarcasm does not always imply negative connotations, for example “saying “‘you look terrible’” to someone who is clearly dressed up for an important meeting” (Huang et al., 2015: 163) to ‘lighten the mood’ or saying “‘we special ordered this weather for you’” to a new colleague coming to work for the first time during a snow storm” (Huang et al., 2015: 163). Although, even in these situations when the hearer means nothing negative, the

hearer can interpret it as such, which depends on the interpersonal relationship between them, trust and level of familiarity.

It is argued that sarcasm has its benefits for our cognitive development. “(...) general forms of sarcasm may stimulate creativity, the generation of ideas, insights, or problem solutions that are novel and useful (e.g., Sternberg & O’Hara, 1999), in both sarcasm expressers and recipients.” (Huang et al., 2015: 163). In other words, sarcasm makes us think; unlike literal utterances which are straightforward, sarcastic utterances symbolically represent a puzzle to our cognitive mechanisms. Therefore, as mentioned previously, sarcasm brings out creativity in both the speaker and the hearer since our mind has to resort to abstract thinking, problem solving and creating ideas. In order to detect sarcasm, abstract thinking is very helpful, if not crucial even, because instead of thinking of one possible solution, which is the case with literal, direct utterances, we are thinking of other interpretations of the utterance.

According to Yus (2012) humor arises in three situations or possibilities: “(a) from the development of the logical form of the joke into an explicature; (b) from the boundary between explicit and implicit interpretations of the joke; or (c) from the hearer’s accessibility to contextual information to obtain implicated premises and conclusions” (Yus, 2012: 121). As previously mentioned, people focus on what is relevant and gear their attention towards it, in order to do so the hearers focus their attention on the speaker’s communicative intentions based on what the speaker uttered in a verbal way or nonverbally, e.g. gestures or facial expressions. This is the so called communicative principle of relevance proposed by Sperber and Wilson. When it comes to humorous utterances, we do not expect them to be relevant in the sense that we will learn some new, important information, but we feel they are worthwhile because we expect to be amused or entertained.

Although we cannot read minds, we can presume the strategies they will make in reaching conclusions or inferences and we can access contextual information to reach a relevant interpretation. Therefore, our cognitive ability allows us to estimate the possible interpretations and decide which one is relevant to us. Furthermore, this mechanism works on a subconscious level, we are not aware of all these possible interpretations that our mind has encountered and rejected, the mechanism automatically brings to our consciousness the relevant one (Yus, 2012)

6. 1. Markers of sarcasm

As far as sarcasm is concerned, certain markers have been observed that indicate the use of sarcasm such as the ones concerning intonation: “exaggerated intonational patterns, singsong melody, falsetto, heavy exaggerated stress and relatively monotonous intonation, separation by heavy (i.e. long) pauses between the words” (Haiman, 1998: 39 in Attardo et al., 2003: 245), “softened voice” (Muecke, 1978: 370 in Attardo et al., 2003: 245), also “rise – fall contours with ironical statements such as “is that so” or “you don’t say” and low tones with statements such as “a likely story” or “I’ll bet” (Bolinger, 1985, 1989 in Attardo et al., 2003: 245). Apart from phonological markers, some facial markers can be observed as well with the use of sarcasm such as raised or lowered eyebrows, wide open, squinting or rolling eyes, winking, (Muecke 1978: 368–369 in Attardo et al., 2003: 246), nodding, smiling and 'blank face' (Attardo et al., 2003: 246).

The term 'blank face' refers to a facial expression that is (paradoxically) expressionless or without emotions or even motions, which excludes involuntary movements such as blinking. “The lack of movement that is felt (communicatively) as most inexpressive is probably that of mouth and eyebrows: no smile, no grimace, no eyebrow raising, no frown is what most typically we feel as blank face” (Attardo et al., 2003: 254). According to Attardo et al. (2003) blank face is one of the markers of irony which is considered paracommunicative because it communicates additional cues which lead the hearer to conclude the statement is ironical. Besides blank face, intense nodding, raising of the eyebrows, depressed or flat intonation are all examples of paracommunicative signals or markers of irony. Unlike paracommunicative signals which add content to the ironical statement, metacommunicative signals are those that communicate about the ironic statement, i.e. the speaker’s intention to convey something ironically, for example saying “I’m being ironical” or “Just kidding”.

Among the cues for sarcasm detection that have already been mentioned, vocal cues are the most studied. “Vocal cues which have been recently investigated include a lower pitch, slower tempo, higher volume, heavier stress, nasalization, more frequent changes in pitch, and more pauses surrounding the utterance” (Bryant & Tree, 2005; Kreuz & Roberts, 1995; Rockwell, 2000; Tepperman et al., 2006 in Olsen, 2015: 9). However, visual cues such as exaggerated movements of the eyebrows, eyes and mouth, or as mentioned previously, the complete

opposite, i.e. lack of movement, expressionless or blank face, if observable represent a more reliable tool in sarcasm detection.

Olsen (2015) lists three important cues, which violate one of Grice's maxims, for detecting sarcasm; these are self-contradiction, hyperbole and manner violation. According to Grice (1975) all sarcastic utterances fail to fulfill the quality maxim, i.e. they violate it. Olsen (2015) also shares this idea that all sarcastic utterances violate the maxim of quality and if the speaker makes it obvious in his utterance, it serves as a cue for the hearer to detect sarcasm. Olsen (2015) identifies the cue that makes evident the violation of quality as self-contradiction. She distinguishes two types of self-contradiction: lexical contradiction and sentimental contradiction. Lexical contradiction refers to utterances in which the words used clearly contradict one another, regardless of context. For example, if we say "Left and right are totally the same thing." (Olsen, 2015: 10), the definitions of the words 'left' and 'right' cannot allow for this utterance to be true as they are in contradiction. On the other hand, sentimental contradiction refers to social knowledge that we share with other people. For example, if we say "I love when my car stalls." (Olsen, 2015: 10), lexically this utterance can be true, but if we apply our common social knowledge to the utterance and the context it is surrounded with, with the help of the meaning-inversion model, it would be clear that the speaker did not mean for the utterance to be interpreted literally.

The second cue Olsen (2015) points out is hyperbole. This figure of speech, which is defined as using exaggeration for emphasis purposes, also violates the maxim of quality but in the way that it adds on to the violation, i.e. it serves as an extra cue for detecting sarcasm. Finally, the third cue, manner violation, refers to violating the maxim of Manner, i.e. *how* something is said. To recall, Manner is the last category that defines Grice's (1975) Cooperative Principle and it is defined by the instructions: avoid ambiguity, be brief and be orderly. Manner violation as a cue for detecting sarcasm refers to the violation of the sub maxim be brief when using repetition, as in "I'm not mad. Nope. Not mad at all. Not even a little."(Olsen, 2015: 11)

7. Analysis of sarcasm in The Big Bang Theory

In this part of the paper, sarcastic utterances from the first two seasons of the sitcom *The Big Bang Theory*² will be analyzed from the perspectives of the theories mentioned in this paper. The sitcom serves as an abundant source for sarcasm analysis mainly because one of its main characters throughout the show has difficulties recognizing and understanding sarcasm. The character in question is called Sheldon Cooper, he is a theoretical physicist at the California Institute of Technology, a person of a very high IQ, but lacking basic social skills, among which is a poor understanding of humor, mainly irony and sarcasm. One of the show's major recognizable traits is precisely Sheldon's struggle with sarcasm. However, sarcasm is used among other characters as well and is used in various situations and contexts, mainly depending on the motive for the use of sarcasm.

7.1. Methodology

This research employs a qualitative method, specifically discourse analysis. It includes examples of sarcasm use from the first two seasons of the sitcom which are grouped in five categories which represent different motives for sarcasm use and functions which sarcasm fulfills – sarcasm as a form of mockery, use of sarcasm for expressing irritation, sarcasm as a mechanism of pointing out the obvious or the absurd, sarcasm as a mechanism for expressing false gratitude or excitement and using sarcasm to fulfill a humorous purpose. The analysis is followed by a discussion and conclusion.

7. 2. Sarcasm as a form of mockery

As previously mentioned, sarcasm as a device is chosen by speakers because it serves the discourse functions for the current context. Some contexts may lead to some sort of a conflict which does not necessarily imply a dispute but a difference of opinions. Depending on the character of the interlocutors, they may choose to mock the other person for something they have said or done and often sarcasm is chosen as a device for this purpose. Let us now see how sarcasm is used in this context in *The Big Bang Theory*. In the next example Sheldon and

² All the details about the episodes and the sitcom are given in the appendices.

Leonard and Sheldon are at the university cafeteria discussing teleportation. Sheldon states that he would not use a teleportation machine because that would imply the original Sheldon would have to be disintegrated, to which Leonard asks if the new Sheldon would be the improvement of the old Sheldon. To Sheldon's answer that the new Sheldon would be the same, Leonard sarcastically answers that that in fact is a problem, implying that the improved Sheldon would be a better result.

1) Series 01 Episode 12 – The Jerusalem Duality

Scene: The University cafeteria.

Sheldon: Personally, I would never use a transporter. Because the original Sheldon would have to be disintegrated in order to create a new Sheldon.

Leonard: Would the new Sheldon be in any way an improvement on the old Sheldon?

Sheldon: No, he would be exactly the same.

Leonard: That is a problem.

Sheldon: So, you see it too.

From the perspective of relevance theory (Sperber and Wilson, 1986), assumptions made in an utterance should be obvious for both the speaker and the hearer, and even more so if they share a mutual cognitive environment. What we see from the example above and from many more examples from this particular show is that although the cognitive environment shared by a group of close friends may often be the same, the assumptions made are not always recognized by the interlocutors. In this case, Sheldon specifically does not recognize the assumption made by Leonard because his perception of the situation is different, i.e. he thinks too highly of himself so fails to detect sarcasm and Sheldon being conceited is the motive for Leonard's use of sarcasm. From the perspective of the relevance theory, what constitutes the context for the hearer are their assumptions, not the physical environment, but rather the psychological construct in the form of hearer's assumptions which are based on their perception of the world, their expectations, etc. Sheldon's and Leonard's assumptions and expectations differ in this case which is the reason sarcasm is left undetected by Sheldon.

In the next example, sarcasm is used as a form of mockery coming from a background of genuine criticism which is, contrary to the general opinion about sarcasm, very rare in this show. The group is having lunch at the university cafeteria when one of their coworkers Leslie stops by. Throughout the show Leslie is referred to by Sheldon as his "arch nemesis" because she belittles his research and insults him by calling him "dumb". In the example

below, when Leslie insults Sheldon, he tries to insult her too but does not come up with a very witty comeback, to which she responds “Ooh, rush me to the burn unit” implying to the colloquial use of the word ‘burn’ used to disrespect, insult or make fun of someone. In this case Leslie is being sarcastic and actually saying that he did not insult her.

2) Series 02 Episode 02 – The Codpiece Topology

Scene: The university cafeteria.

Sheldon: You know how I know we’re not in The Matrix?

Leonard: How?

Sheldon: If we were, the food would be better.

Leslie (arriving): Hey, Leonard.

Leonard: Hey, Leslie.

Leslie: Hey, dummy.

Sheldon: Hello to you, insufficiently intelligent person.

Leslie: Ooh, rush me to the burn unit. Hey, Leonard, do you have a second, I need to ask you something.

Similarly, in the next example we see the use of sarcasm as a tool to specifically mock someone’s accomplishments, only in this case the sarcasm is directed at Leonard by one his coworkers with whom the group is not on good terms. This is one of the most typical uses of sarcasm, i.e. what most people believe sarcasm represents – an indirect criticism. People opt for sarcasm to make the criticism seem less aggressive (Dews and Winner, 1995 in Shamay-Tsoory et al., 2005), in the next example Kripke, one of the group’s coworkers expresses criticism towards Leonard’s work but with the use of sarcasm he expresses it less overtly and thus ‘saves face’. As previously mentioned, one of the social functions of humor is decommitment (Attardo, 1994) meaning that the speaker is “guarded” by the humorous utterance but able to criticize someone without being direct. That way, the receiver of the criticism does not have many options to respond besides being sarcastic as well.

3) Series 02 Episode 13 – The Friendship Algorithm

Scene: the University cafeteria

Kripke (arriving): Hey Hofstadter!

Leonard: Hey Kripke.

Kripke: Heard about your latest proton decay experiment, twenty thousand data runs and no statistically significant results. Very impressive!

Howard: What a jerk.

Raj: Don't feel bad Leonard, negative results are still results.

The next example could be regarded as a form of mockery but also as using sarcasm for humorous purposes without connotations of criticism.

4) Series 02 Episode 07 – The Panty Pinata Polarization

Scene: at the apartment, Leonard, Sheldon, Ray and Howard are playing a game when Penny enters the apartment asking to watch America's Next Top Model show on their TV, and they proceed to comment the show.

Howard: Oh, look, that's the future Mrs. Wolowitz. No, wait, that's the future Mrs. Wolowitz. With her head in the lap of, what a coincidence. It's the future Mrs. Wolowitz.

Leonard: Yeah, and they can all move in with you and your mother, the current Mrs. Wolowitz.

This form of mockery expressed by sarcasm is not regarded as criticism when it is used among a group of people who are familiar with each other. In this case, Howard recognizes the sarcastic comment but does not take offence or regard it as a serious criticism, although in a way it is a form of mockery. In cases such as these, people who are familiar with each other can express their honest opinions and criticize or mock their friends for something without it being perceived as harmful. As previously mentioned, in a familiar environment sarcasm does not have to result harmfully for the social relations, instead it is seen as creative and humorous (Huang et al., 2015).

Sarcasm is mainly perceived as cruel, aimed to hurt or criticize someone, bitter and sharp. However, as can be observed in the series The Big Bang Theory there are more examples of sarcasm use for other motives than for criticizing someone especially in a sharp and hurtful way. As we have seen from these examples, sarcasm is not regarded as genuine criticism or mockery when it is used in a familiar environment. However, the use of sarcasm between people who are not as familiar is regarded as a form of criticism.

7. 3. Sarcasm as a tool for expressing irritation

In general, sarcasm is often used when people are experiencing a frustrating situation, or when something or someone is irritating them, as a tool to overcome said frustration. Also, when we are frustrated we tend to lash out at others, and in some cases sarcasm serves this

purpose. For example, in one of the episodes, Penny is having trouble unlocking her apartment because she had, in distress, put her car key in the door lock.

5) Series 02 Episode 03 – The Barbarian Sublimation

Penny: I can't get the damned key out.

Sheldon: Well that's not surprising. That Baldwin lock on your door uses traditional edge mounted cylinders, whereas the key for your Volkswagen uses a centre cylinder system.

Penny: Thank you, Sheldon.

Sheldon: You're welcome. Point of inquiry, why did you put your car key in the door lock?

Penny is frustrated because she had an acting audition that went badly, but Sheldon does not pick up on that until she explains what had happened when he offers her to wait in his apartment:

6) Series 02 Episode 03 – The Barbarian Sublimation

Sheldon: There there. (Reluctantly) Would you prefer to wait in our apartment?

Penny: No Sheldon, I'd rather sit on this freezing cold floor sobbing like a three year-old.

Sheldon: Alright then. (Turns to go inside again.)

Penny: For God's sake! (Stomps into apartment.)

Sheldon: Just when I think I've gotten the hang of sarcasm.

Sheldon throughout the show displays a fundamental lack of knowing how to behave or interpret certain social situations. From this scene we see that he is able to show empathy when a person explains their situation, but he is unable to recognize it by himself. Sheldon generously offered Penny to wait for a locksmith in his apartment, Penny however, instead of saying simply 'yes' to his question chose to use sarcasm instead. From the perspective of the Mention theory, we have learned that the speaker mentions the literal meaning which echoes his attitude towards it (Jorgensen, et al., 1984). In this example, Penny uttered the literal meaning which is that she "would rather sit on the freezing cold floor sobbing like a three year-old" than wait in Sheldon's apartment. If we recognize this utterance as sarcastic, it becomes clear that the literal meaning is not what the speaker had in mind, but rather that she

echoed an attitude toward it. She in fact frowns on the idea of having to wait on the floor for the locksmith.

According to Grice's (1975) Cooperative Principle participants should make their contributions understandable by following the four maxims discussed earlier. Penny has violated the maxim of Quality; in fact, all sarcastic utterances could be regarded as a violation of this maxim, because to recall it is described with the supermaxim "Try to make your contribution one that is true" (Grice, 1975: 308) and two submaxims "1) do not say what you believe to be false, 2) do not say that for which you lack adequate evidence" (Grice, 1975: 308). All sarcastic utterances are created by offering a false literal meaning; however, the real meaning can be recognized from the speaker's attitude and context. Penny was visibly frustrated and angry in this scene, for which she offered an explanation. Sheldon was aware of her situation and the context of the utterance, however failed to recognize her utterance as sarcastic.

Sperber and Wilson (1986) based their relevance theory on the assumption that people are able to differentiate relevant from irrelevant information. This mental capacity is possible according to them (1986) because people have certain background assumptions which combined with the new information constitute the context. When it comes to sarcasm, for Sheldon this is not the case. Sheldon shows lack of ability to infer from the context, i.e. from his assumptions, people's attitudes. Such is the case in this scene when he asks Penny if she would prefer waiting in his apartment and she sarcastically replies she would rather wait on the cold floor. He does not question her answer to be true, he assumes she is telling the truth. One of the cues for detecting sarcasm, as mentioned earlier in this paper, is sentimental contradiction (Olsen, 2015) which is evident in the example given above. Penny saying that she would rather wait on the freezing cold floor sobbing like a three year old is a sentimental contradiction most people would recognize as a sarcastic utterance, Sheldon however does not.

As previously mentioned, some people have difficulties reading people's attitudes and feeling empathy. Throughout the show, Sheldon shows on many occasions the inability to feel empathy. Despite his extreme intelligence, he often displays childlike qualities such as being direct at all times. As previously mentioned, children experience difficulties regarding sarcasm detection because they find it difficult to understand other people's mental states and

intentions (Shamay-Tsoory et al., 2005). We are learnt the principles of certain social norms with age, but as children we are direct, we say what we mean and we assume others say what they mean as well. Sheldon demonstrated direct behavior through the show, he says what he means, which is why sarcasm is especially difficult for him to detect.

In another episode we can see a similar example of the use of sarcasm to express frustration. Sheldon runs into Penny at the lobby of their building and asks her how work was, she responds sarcastically:

7) Series 02 Episode 14 – The Financial Permeability

Scene: entering the lobby of the building.

Leonard: Hey, Penny. How was work?

Penny: Great. I hope I'm a waitress at the Cheesecake Factory for my whole life.

Sheldon: Was that sarcasm?

Penny: No.

Sheldon: Was that sarcasm?

Penny: Yes.

Sheldon: Was that sarca..

Leonard: Stop it!

What we see from this example is that she obviously does not hope to be a waitress at the Cheesecake Factory for her whole life which is again a form of sentimental contradiction, but in this case Sheldon questioned whether the literal meaning is true perhaps because he knows that she in fact inspires to be an actress. It was also probably the way she uttered a sentence which would normally be uttered with enthusiasm if it were true. As previously mentioned, there are certain markers that indicate the use of sarcasm and are helpful for hearers to detect sarcasm such as exaggerated intonation and stress patterns, separation by long pauses between the words, raised or lowered eyebrows, rolling eyes, etc. In this case it is the monotonous intonation of an utterance that would normally be uttered with enthusiasm, which is in itself self-contradictory.

7. 4. Sarcasm as a mechanism for pointing out the obvious or the absurd

Considering the definition of sarcasm and the way most people perceive it, one would expect to find a number of examples of sarcasm used to criticize someone in this sitcom, however, as

mentioned previously there are more examples of sarcasm use for other motives such as using sarcasm as a mechanism for pointing out the obvious or the absurd of which there are a number of examples from the sitcom. The reason these two notions or categories are grouped together in this section is because in a way they act as antonyms, i.e. they represent two opposite ideas if we consider that what is obvious is regarded as something that is normal or “easily understood” (online Merriam Webster Dictionary, 2019) and something that is absurd is “ridiculously unreasonable” (online Merriam Webster Dictionary, 2019) and therefore not easily understood.

In one of the episodes of The Big Bang Theory Sheldon snuck into Penny’s apartment to clean while she was asleep after he had seen the state of her messy apartment earlier that day. When Leonard confronts him, Sheldon says: “I had no choice. I couldn’t sleep knowing that just outside my bedroom was our living room, and just outside our living room was that hallway, and immediately adjacent to that hallway was... this” (Series 1, episode 2 – The Big Bran Hypothesis). The next morning Leonard and Sheldon discuss what had happened the night before, Leonard is trying to explain to Sheldon that it is unacceptable to break into someone’s apartment to clean while that person is asleep, regardless how well you know them:

8) Series 1, episode 2 – The Big Bran Hypothesis

Sheldon: I have to say, I slept splendidly. Granted, not long, but just deeply and well.

Leonard: I’m not surprised. A well known folk cure for insomnia is to break into your neighbor’s apartment and clean.

Sheldon: Sarcasm?

Leonard: You think?

Sheldon: Granted, my methods may have been somewhat unorthodox, but I think the end result will be a measurable enhancement of Penny’s quality of life.

Leonard: You know what, you’ve convinced me, maybe tonight we should sneak in and shampoo her carpet.

Sheldon: You don’t think that crosses a line?

Leonard: Yes! For God’s sake, Sheldon, do I have to hold up a sarcasm sign every time I open my mouth.

Sheldon: You have a sarcasm sign?

From this example it is clear that Sheldon does not behave in accordance to certain social rules. However, as he says, he cannot help himself and believes that even though his method

was a bit radical, that Penny should in fact be thankful. Leonard did not approve of Sheldon's measures and he showed it through two sarcastic comments. In the first one he states that "a well known folk cure for insomnia is to break into your neighbor's apartment and clean". According to the mention theory (Jorgensen et al., 1984) the real meaning behind an utterance is a combination of the literal meaning and the speaker's attitude towards the literal meaning expressed. Leonard knows that there is no known folk cure for insomnia which involves breaking into your neighbor's apartment to clean and his attitude towards it is that it is ridiculous and socially unacceptable. This is one of the few times Sheldon recognizes sarcasm, perhaps because Sheldon knows that this 'false' folk cure for insomnia does not exist. It is also interesting to note, in this example particularly, the mounting of sarcasm, i.e. the use of one sarcastic utterance after another. It appears that this occurs because the situation is so absurd that Leonard is using sarcasm to express how absurd Sheldon's actions are, but since Sheldon does not grasp the absurdity of his actions, Leonard resorts to sarcastic comments repeatedly.

According to the pretense theory (H. H. Clark & Gerrig, 1984 in Olsen, 2015) the speaker only pretends to have poor judgment when making a sarcastic comment which we can see in Leonard's second comment "you know what, you've convinced me, maybe tonight we should sneak in and shampoo her carpet". From the context and Leonard's opinion which he expressed earlier in the conversation it is evident that he is being sarcastic, however Sheldon takes his suggestion literally, but even to him shampooing her carpet while she sleeps would be crossing a line. Also, as mentioned all sarcastic utterances violate Grice's (1975) maxim of Quality because they give a false literal interpretation, but they also violate the maxim of Manner in many cases. To recall, this maxim is described with sub-maxims: avoid obscurity of expression, avoid ambiguity, be brief, and be orderly. As it often happens sarcastic utterances are ambiguous at least to some people. Such as in this example when Leonard says that Sheldon convinced him and they should sneak in and shampoo her carpet.

Sarcasm is often used to point out the absurdity of the situation or that someone is acting in an absurd manner, Sheldon is a character of many quirks and to many people his behavior is often regarded as strange or even absurd, such as in this example where he cleaned Penny's apartment while she was sleeping and without her approval. As previously mentioned, there are a lot of factors that influence sarcasm detection, context being the key to understanding it.

However, context is individually interpreted and there are many factors to be considered, especially in terms of social settings which represents the main issue for Sheldon.

According to Sperber and Wilson (1986) people focus their attention on what is relevant to them and create assumptions or beliefs by deducing from the information provided to them. Therefore, if we look at the two instances from example 8) when Sheldon fails to detect sarcasm, we see that what he focuses on is information which is relevant to him, he believes Leonard may have changed his mind and adopted his radical methods. Also, according to the principle of relevance people differentiate relevant from irrelevant information based on their intuition which is influenced by their assumptions. Therefore, naturally misunderstandings occur in everyday conversation when assumptions of the hearer and the speaker are not shared and the same can be applied to understanding or better yet misunderstanding of sarcasm.

In the next example Sheldon is exaggerating as he often does, he is upset because the sandwich he ordered had the ingredients in the “wrong order” which to him represents as he says an “unmitigated disaster”. He even goes so far as to say that “they might as well have dragged this thing through a car wash” to which Leonard sarcastically replies “I don’t believe it” pointing out to Sheldon’s absurd behavior. Leonard’s comment is sarcastic because there is in fact nothing wrong with the sandwich, they put the right ingredients, just not in the way Sheldon imagined it, but obviously the makers of the sandwich cannot know this. Therefore, when Leonard says “I don’t believe it” he in fact means the opposite; he does believe they made it the way they did, because it is a perfectly normal sandwich. Sheldon does not pick up on the sarcasm because to him his remarks are completely justifiable, i.e. his assumptions and Leonard’s assumptions are not shared in this case. Sheldon gears his attention to information which is relevant to him and in this case his frustration with the sandwich is from his point of view completely justifiable, therefore he believes that Leonard is sharing and understanding his frustration so he does not doubt the literal meaning of his utterance.

9) Series 01 Episode 14 – The Nerdvana Annihilation

Scene: The apartment.

Sheldon: Well, this sandwich is an unmitigated disaster. I asked for turkey and roast beef with lettuce and swiss on wholewheat.

Raj: What did they give you?

Sheldon: Turkey and roast beef with swiss and lettuce on wholewheat. It’s the right ingredients but in the wrong order. In a proper sandwich the cheese is adjacent to the

bread to create a moisture barrier against the lettuce. They might as well have dragged this thing through a car wash.

Leonard: I don't believe it.

Sheldon: I know, it's basic culinary science.

Sarcasm is often used in situations when people ask questions to which the answers are obvious. It could be argued that it is also a form of mockery of that person, but when used in this sense, sarcasm does not involve indirect criticism, therefore it is not perceived as harmful, but rather serving a humorous purpose and is most often used within a group of people who are familiar with each other. Again, the context is not the same for the hearer and the speaker, and by context we presume not the physical environment but the psychological construct of the hearer's assumptions about the world, so what may be considered obvious for the speaker may not be so for the hearer. In continuation we see an example of the use of sarcasm to point out the obvious in a situation:

10) Series 01 Episode 14 – The Nerdvana Annihilation

Scene: The apartment.

Leonard: Some guy is auctioning off a miniature time machine prop from the original film and no-one is bidding on it.

Howard: A time machine from the movie The Time Machine?

Leonard: No, a time machine from Sophie's Choice.

Leonard is talking about the replica of the time machine from the movie The Time Machine that he bid on, and Howard asks a simple question: "A time machine from the movie The Time Machine?" to which Leonard sarcastically says "No, a time machine from Sophie's Choice". From the perspective of the pretense theory, Leonard is again pretending to be unwise because to him it is obvious of what time machine he is talking about, but to someone else it may not be obvious. Leonard is being sarcastic because Howard and him are on good terms and he believes Howard has in fact watched the movie and should have figured it out for himself instead of asking the question. Another instance of sarcasm being used to point out the obvious in a situation is in the scene when Sheldon is knocking on Penny's apartment, when she opens the door he tells her that Leonard is asleep, to which she sarcastically replies "thanks for the update". Sheldon obviously had something else in mind besides saying that Leonard is asleep, but since he did not say what he meant right away his utterance seems like an observation with no objective:

11) Series 02 Episode 05 – The Euclid Alternative

Scene: Outside Penny's apartment.

Sheldon: (Knock, knock, knock) Penny, (knock, knock, knock) Penny, (knock, knock, knock) Penny...

Penny (opening door): Sheldon, what is it?

Sheldon: Leonard's asleep.

Penny: Thanks for the update (begins to close door.)

Sheldon: No, wait. You have to drive me to work.

In the next two examples, Howard is being sarcastic to point out to something obvious. In the first example he got the Mars Rover stuck in a ditch and asks the rest of the group for assistance. When Sheldon asks him where he got the Mars Rover stuck, Howard sarcastically replies "On a dusty highway just outside Bakersfield. Where do you think? On Mars!". Howard used sarcasm to point out that it is obvious that he got the Mars Rover stuck on Mars as it would be impossible to get it stuck anywhere else. But the use of sarcasm here can be explained with the fact that he is experiencing a frustrating situation and is lashing out on his friend, but he is in no way criticizing Sheldon with his sarcastic comment. According to Sperber and Wilson (1986), as previously mentioned, our ostensive behavior, i.e. direct, demonstrative behavior carries a guarantee of relevance which includes paralinguistic indications such as tone of voice, facial expressions, body language, etc. The way Howard said "On a dusty highway just outside Bakersfield" is cue enough that the speaker is being sarcastic.

12) Series 02 Episode 08 – The Lizard-Spock Expansion

Scene: A corridor at the university.

Howard: Oh, thank God, you're here.

Leonard: What's the emergency?

Howard: I got the Mars Rover stuck in a ditch.

Sheldon: Where?

Howard: On a dusty highway just outside Bakersfield. Where do you think? On Mars!

In the next example from the same episode, Leonard is outside Howard's front door knocking to which Howard's mother tells Howard to open it and he sarcastically replies that he had no idea that is what people do when someone knocks. From both examples it is clear that

Howard is experiencing some kind of a frustrating situation and responding sarcastically to questions or comments which are obvious.

13) Series 02 Episode 08 – The Lizard-Spock Expansion

Scene: Outside Howard's front door.

Howard's Mother (voice): Howard, get the door!

Howard (voice): Really? Is that what you do when someone knocks? Thank you. I had no idea! (opening door) Hey, buddy. What brings you to my little slice of hell?

In one of the episodes Penny is trying to prove to Leonard his girlfriend and him are living together so she starts to point out his girlfriends belongings in his apartment, eventually Leonard realizes that she has in fact unofficially moved into his apartment to which Penny sarcastically asks him "Really? What was your first clue?" pointing out to something obvious to her but not to him.

14) Series 02 Episode 10 – The Vartabedian Conundrum

Penny: You're going to go down swinging, huh? All right, well, we got your body lotion, your InStyle Magazine, your jewellery box.

Leonard: We're not... Where's my Bat Signal?

Penny: You have a Bat Signal?

Leonard: I did. It was right here. She must've... Oh, my God, we're living together.

Penny: Really? What was your first clue?

In the next example sarcasm is being used to point out the absurd in a situation. Ramona, a young girl fascinated with Sheldon thinks Penny is having feelings for him and thus distracting him from his scientific breakthroughs, so she confronts Penny.

15) Series 02 Episode 06 – The Cooper-Nowitzki Theorem

Ramona: I know what's going on here.

Penny: Really? Well, then will you explain it to me?

Ramona: You're in love with Dr. Cooper.

Penny: Uh, yeah, no, that's not it.

Ramona: Don't try to deny it. He's a remarkable man, but you have to let him go.

Penny: Oh, gee, okay.

Ramona: I know it's hard, but he's a gift to the whole world, and we can't be selfish.

Penny's sarcastic comment "Oh, gee, okay" comes from the background of her obviously not having feelings for Sheldon, thus Ramona's remarks seem absurd to her. Penny could have been upfront and direct in her utterance and explain that Ramona got the wrong impression but it is most likely that sarcasm was a better option considering Ramona's character, i.e. her persistence in her own observations and conclusions.

There are a number of instances when Penny is being sarcastic to point out that something is absurd, especially when it comes to Sheldon. This is probably because they come from different backgrounds and have very different personalities. In the next scene Sheldon is upset because Penny touched one of his onion rings and then put it back.

16) Series 02 Episode 07 – The Panty Piñata Polarization

Penny: Come on, I touched one onion ring.

Sheldon: And then you put it back, compromising the integrity of all the other onion rings.

Penny: Oh, honey, the buses don't go where you live, do they?

Sheldon: Look, Penny, I wish I could be more lenient with you, but since you've become a permanent member of our social group I have to hold you to the same standards as everybody else.

Leonard: Congratulations. You're officially one of us.

Howard: One of us, one of us.

Penny: Well, what a thrill.

Penny uses the expression "the buses don't go where you live" to point out that Sheldon's behaviour is not normal. It figuratively means that Sheldon lives in a strange place where even the buses don't go. It is a form of mockery as well but in this case it serves more of a humorous purpose than to criticize Sheldon's character, we can see that in the way she said it and with using the expression "honey". In continuation, Sheldon explains that she has become a member of their group so he has to treat her the same to which Penny sarcastically say "well, what a thrill". Again, the use of sarcasm here only fulfils the humorous purpose and points out to the quirkiness of the whole group rather than her dissatisfaction of becoming a member of their group.

According to Sperber, Jorgensen and Miller (1984), in order to comprehend the implicit in the meaning the hearer needs to be able to pragmatically analyze the literal meaning, the context and the speaker's intentions, all of which represent a puzzle for Sheldon in the example above

when Penny says “the buses don’t go where you live, do they?”. To Sheldon the literal meaning in the first place would not make any sense because the buses do go where he lives, the context, as previously observed, is interpreted individually and Sheldon does not regard his reaction to Penny returning the onion ring as something strange. As far as speaker’s intentions are concerned, as previously mentioned, Sheldon throughout the show often shows lack of understanding of other people’s emotions, behavior or intentions.

Similarly, in the next example Penny makes a sarcastic comment about Sheldon and Leonard’s mother who both have peculiar personalities and are very much alike when it comes to behaving in social settings. In the scene Leonard is trying to get away from his mother who is visiting.

17) Series 02 Episode 15 – The Maternal Capacitance

Scene: Penny’s apartment

Leonard: You got alcohol?

Penny: Your mom still here?

Leonard: Yep.

Penny: Come on in. Wait, wait, she’s not gonna come here looking for you, is she?

Leonard: Oh, relax. She took Sheldon to the hospital to get a brain scan.

Penny: Oh, my God. What happened?

Leonard: Nothing. Mother likes looking at brains and Sheldon likes getting his brain scanned.

Penny: Geez, what a fun couple.

Penny stands out from the rest of the group for a number of reasons, they have different backgrounds, personalities and interests. While Penny comes from the background of being one of the popular girls who did not excel at school and aspires to be an actress, the rest of the group are typical “geeks”, socially awkward but brilliant scientists who take passion in comic books and videogames. According to Sperber and Wilson (1986), as previously mentioned, our assumptions constitute the context and our assumptions are based on our general knowledge of the world, our beliefs, expectations, experience, etc. Naturally, the context for Penny and the rest of the group is, according to this definition, not always the same. This contrast is especially evident in the difference between Penny’s character and Sheldon’s character which is why she often uses sarcasm with him. His absurd behavior at some points

is even more absurd to her than to the rest of the group who share some similarities with Sheldon.

7. 5. Sarcasm as a mechanism for expressing false gratitude or excitement

On numerous occasions in the show, sarcasm is used to express false or insincere gratitude or excitement. To elaborate, people often use sarcasm as a response to being complimented when the compliment feels more as a criticism or an insult than a compliment or when they pretend to be excited for someone when that person is boasting about their accomplishments. For example, in the next example Sheldon expresses his dislike of Leonard's new girlfriend and tries to persuade Penny to get back together with Leonard.

18) Series 02 Episode 02 – The Codpiece Topology

Scene: The stairs. Sheldon is playing on his computer at the end of the long extension cord.

Sheldon: Given this situation, I have no choice but to withdraw my previous objections to your ill considered relationship with Leonard.

Penny: Oh, gee, well, thank you for that. But, um, I think for now Leonard and I are just going to stay friends.

Sheldon: No, that response is unacceptable to me.

In the next example, we can see how sarcasm is used to express gratitude which is insincere. For instance, when somebody is doing another person a favour, but does so in order to make himself/herself appear generous, it provokes irritation and generally people frown on this type of behaviour. People often use sarcasm to express insincere gratitude or excitement with people who behave in a conceited or arrogant way, especially if they intentionally boast of in front of others for something they have achieved or possess. The background of the next example is that Raj has been chosen to be in the People magazine due to his discovery of a little planetary object. Since the news, Raj has been acting very conceited which the group found annoying.

19) Series 02 Episode 04 – The Griffin Equivalency

Raj: Speaking of untouchables, I've got great news for you guys. People magazine is having a reception this Saturday, and I managed to get you invited.

Howard: Oh, gee, thanks.

Raj: Oh, you're welcome. Of course, I couldn't get you into the VIP section, because, you know, that's for VIPs, and you guys are just, you know, Ps.

...

Raj: Hey, Leonard, did you see my limo downstairs.

Leonard: Yeah.

Raj: It's bigger than the house my grandfather grew up in.

Leonard: Terrific.

Sarcasm can be used to express false gratitude even when someone insults us in an indirect way, such as in the next example where Sheldon is talking to Penny about Leonard's new girlfriend and points out that she (the new girlfriend) is the only one he ever found tolerable. Even though he did not say it directly, it can be concluded that consequently he did not find Penny tolerable.

20) Series 02 Episode 09 – The White Asparagus Triangulation

Scene: at Penny's apartment.

Sheldon: Yes, see, of the handful of women Leonard's been involved with, she's the only one I have ever found tolerable.

Penny: Well, what about me?

Sheldon: The statement stands for itself.

Penny: Well, aren't you sweet?

Grice (1967) argued that ironic utterances are implicatures, a term he coined to describe what the speaker implicates. When observing sarcastic utterances it is important to understand what the speaker implies rather than what he actually says, and these implicatures can be identified from the conventional meaning of the utterance, the context, background knowledge, linguistic or paralinguistic cues, etc. For example, what Penny implies is that Sheldon has in fact insulted her or hurt her feelings by saying that Leonard's new girlfriend is the only one of his girlfriends he ever found tolerable. From the background knowledge it is obvious that Penny as Leonard's ex girlfriend would take offence because Sheldon implied he did not find her tolerable.

Sarcasm is often used to express false excitement, for example if somebody is thrilled about something that to us seems tiresome or simply does not interest us. However, it is important to point out that sarcasm is used in this case with people we are familiar with, otherwise it would seem very rude, potentially jeopardize the social relationship between the interlocutors and

create an uncomfortable situation. In one of the episodes, Penny announces to Leonard and Sheldon that she has bought them presents for Christmas which represents a problem to Sheldon because it means that he has to buy her a present as well, so he sees it as an obligation. He devised a carefully designed plan of dealing with said obligation with which Sheldon is not impressed, i.e. he sees it as one of Sheldon's exaggerations.

21) Series 02 Episode 11 – The Bath Item Gift Hypothesis

Sheldon: Mmm, great news, Leonard, I've solved my Penny gift dilemma.

Leonard: Yippee.

Sheldon: You see, the danger was that I might under or over-reciprocate, but I have devised a foolproof plan. See, I will open her gift to me first and then excuse myself, feigning digestive distress. Then I'll look up the price of her gift online, choose the basket closest to that value, give it to her and then I'll return the others for a full refund.

Leonard: Brilliant.

Sheldon: It is, isn't it? Is it okay if I hide them in your room? The smell makes me nauseated.

Leonard's first sarcastic comment "Yippee" reveals that in fact he does not consider Sheldon's news to be great news at all, in non-sarcastic situations the interjection 'yippee' would be uttered with enthusiasm because it is normally used to express delight, so it is not hard to recognize the sarcasm if it is uttered in a monotonous way and considering the context. The second sarcastic comment "Brilliant" reflects his opinion which is precisely the opposite, there is nothing brilliant that Leonard would find in a plan which is unnecessary to begin with.

As previously mentioned, sarcasm is often used to express false gratitude, especially if someone insults you directly or indirectly. For example, in one of the episodes Sheldon devised a questionnaire on why his current friends like him so he could try and befriend Kripke, one of his co-workers, because he controls the new open science grid computer Sheldon needs.

22) Series 02 Episode 13 – The Friendship Algorithm

Scene: At Penny's apartment

Penny: Wait! How many questions are on this thing?

Sheldon: Only 211. Don't worry, in deference to you, I've kept them on a high school graduate reading level.

Penny: Thanks pal.

Sheldon: You got it, buddy.

Penny is being sarcastic by saying "Thanks pal." because Sheldon has in fact insulted her intelligence by saying that he simplified the questions for her, but he does not pick up on her sarcasm because he in fact believes he did her a favor as she could not follow the complex questions Sheldon could have devised. The next example of false gratitude is also very common, it is not an answer to an insult but to somebody pointing out a flaw or indicating something inappropriate in certain social settings. For example, if we are having a conversation with people we are not yet familiar with we will try to present ourselves in the best light and perhaps embellish some of our traits or habits. In one of the episodes we can see a clear example of this type of false gratitude. When Penny meets their new neighbor Alicia she explains that she is dressed the way she is because she is going jogging, but Sheldon does not recognize the fact that Penny lied because she does not want to seem shabby and points out the fact that she does not jog and that it is more likely that she is out of clean clothes. This is because Sheldon does not hide his habits or tries to represent himself in another light when meeting new people, even though this is pretty common.

23) Series 02 Episode 19 – The Dead Hooker Juxtaposition

Scene: the lobby of the building, Penny is meeting their new neighbour Alicia.

Alicia: Cool t-shirt.

Penny: Oh, yeah, I don't usually dress like this. I'm going jogging.

Sheldon: You don't jog.

Penny: I can start.

Sheldon: True, but the more likely explanation for your attire is that you're out of clean clothes again.

Penny: Thank you, Sheldon.

Sheldon: You're welcome, Penny.

The next example shows another use of sarcasm for false gratitude. In one of the episodes Sheldon, Leonard, Raj and Howard have decided to go on an expedition to the North Pole but Leonard is having doubts which have to do with Penny and not his fear of failing or disappointing anyone.

24) Series 02 Episode 23 – The Monopolar Expedition

Leonard: I don't think I can go to the North Pole.

Sheldon: Okay, Leonard, I know you're concerned about disappointing me but I want you to take comfort from the knowledge that my expectations of you are very low.

Leonard: Yeah, that's very comforting.

Again Sheldon is acting in a conceited way by saying that Leonard is worried he would disappoint him, but besides being conceited he insults Leonard by saying that he has low expectations of him to which Leonard says "that's very comforting" implying that Sheldon in fact insulted him while trying to comfort him.

It can be noted that the examples that were discussed under this category are all short utterances so it could be difficult to detect sarcasm based on lack of information. However, most people would be able to detect sarcasm due to paralinguistic cues that accompany them. Therefore, the examples we have seen, "Oh, gee, well thank you for that", "Oh gee thanks", "Terrific", "Well aren't you sweet?", "Yippee", "Brilliant", "Thanks pal", "Thank you Sheldon" and "That's very comforting" for expressing false, gratitude or excitement are accompanied with markers of sarcasm such as blank face, monotonous intonation, squinting or rolling eyes, etc. which represent the discordance of what is being said and how it is being said.

7. 6. Using sarcasm for humorous purposes

One of the functions of sarcasm is to create a humorous atmosphere (Dews and Winned, 1995 in Shamay-Tsoory et al., 2005). It is not always easy to pinpoint the motive for the use of sarcasm so it sometimes seems to simply have a humorous purpose, i.e. the person using it does not have a particular motive or reason behind it other than for it to be humorous. This is nothing strange considering jokes in general are meant to be humorous, i.e. to provoke laughter so sarcasm is not an exception. There are instances in The Big Bang Theory as well where it is difficult to label certain uses of sarcasm under a specific category, such as we have observed previously. For example, in one of the episodes Penny has returned from her hometown and comes to greet the group. After telling a joke which the rest of the group fails

to understand and Sheldon overanalyzing the situation as he normally does, she makes a sarcastic comment.

25) Series 01 Episode 11 – The Pancake Batter Anomaly

Scene: The living room of the apartment. Leonard and Sheldon are playing the three-dimensional chess game from the original Star Trek series.

Penny (knocking and entering): Hi guys.

Leonard: Hey!

Penny: Did you get my mail.

Leonard: Yeah, right here. How was Nebraska?

Penny: Oh, better than North Dakota! (Pause) I guess that joke's only funny in Nebraska.

Sheldon: From the data at hand you really can't draw that conclusion. All you can say with absolute certainty is that that joke is not funny here.

Penny: Boy, it's good to be back.

As previously mentioned, humour loses its purpose when explained, so when Sheldon overanalyzes and corrects her sentence it is clear that Penny is being sarcastic when she says "Boy, it's good to be back". But it is also clear that she does not mean that it is not good to be back which would be the case if we followed the definition of sarcasm – saying the opposite of what one means. Therefore, Penny is indeed happy to be back, she simply made a sarcastic comment pointing out to Sheldon's annoying habits. However, it also wouldn't be considered as criticism or mockery here, at least not as we have seen in some previous examples where a person's traits or actions were being criticized, in this case it would be regarded as more of an observation of somebody's habits that we find annoying. Therefore, in this case and the example that follows the use of sarcasm serves simply a humorous purpose.

In the next example Howard makes a sarcastic comment based on Sheldon's choice of words:

26) Series 02 Episode 04 – The Griffin Equivalency

Scene: Sheldon's office. He is making annotations on his board.

Sheldon: Oh, there's my missing neutrino. You were hiding from me as an unbalanced charge, weren't you, you little subatomic Dickens?

Leonard (entering with Howard): Hi Sheldon.

Sheldon: Here, look, look, I found my missing neutrino.

Howard: Oh, good, we can take it off the milk cartons.

Here sarcasm serves only a humorous purpose, it does not imply a motive such as those covered earlier on in this paper like irritation, criticism, false gratitude or excitement, it is considered as a witty comment. When Sheldon says he “found his missing neutrino”, Howard replies that they can “take it off the milk cartons” implying to pictures of missing people which can be found on milk cartons. Howard is simply making a humorous comment based on Sheldon’s choice of words. As previously mentioned, sarcasm is regarded as a creative and beneficial for increasing abstract thinking if it is used in a familiar environment (Huang et al., 2015). Howard’s comparison of the ‘missing neutrino’ and missing people on milk cartons to some people may seem inconsiderate but it does provoke laughter in the audience and is an example of creative thinking.

In the next example there are two instances of sarcasm use for humorous purpose, both of which are not recognized by Sheldon:

27) Series 02 Episode 23 – The Monopolar Expedition

Sheldon: Do you remember the grant proposal I submitted to the National Science Foundation to detect slow-moving monopoles at the magnetic North Pole?

Leonard: Hardly a day goes by when I don’t think about it.

Sheldon: Aw, how nice. Well, a space opened up at the last minute on the NSF expedition to the Arctic Circle.

According to Attardo (1994) people can separate themselves from their literal meaning, which is mostly the case with sarcasm. Leonard is being sarcastic when he says that “hardly a day goes by when he doesn’t think about it”, ‘it’ being Sheldon’s proposal to the National Science Foundation, he is obviously exaggerating and implying that there is no reason for him to constantly be thinking of one of Sheldon’s proposals, he is simply providing a humorous comment which Sheldon takes literally. To provide more context for the next example which follows briefly after the previous scene, Sheldon has announced to the group that he is going to the North Pole.

28) Series 02 Episode 23 – The Monopolar Expedition

Sheldon: Good news, gentlemen, I have tentatively accepted...

All: Yeah! Woo-hoo!

Sheldon: ...the invitation to join the Arctic Expedition.

Leonard: It's not gonna be the same without you.

Howard: Godspeed.

Sheldon: Thank you, but your sentiments may be premature.

Leonard is being sarcastic when he says that "It's not gonna be the same without you", the group was in fact looking forward to spending the summer without Sheldon, however they eventually decide to accompany him. As previously mentioned, in order to comprehend the implicit in the meaning, the hearer needs to be able to pragmatically analyze the literal meaning, the context and the speaker's intentions (Sperber, Jorgensen and Miller, 1984). The literal meaning here could also be regarded as true because it indeed would not be the same without Sheldon, Leonard is implying that it would be better. However, this utterance is regarded as sarcastic because this expression is used to say somebody is going to be missed.

8. Discussion and conclusion

The aim of this thesis was to demonstrate that, contrary to the common perception of sarcasm being used namely as a form of mockery and ridicule, there are more instances of sarcasm being used for different purposes and functions. Twenty eight examples from the first two seasons of the sitcom *The Big Bang Theory* were analyzed in this paper out of which there were only two examples of sarcasm being used in the context of genuine criticism and mockery, and two more which could be regarded as a form of mockery but since they occur in a familiar environment they are not regarded as hurtful but rather fulfilling a humorous purpose.

Instead, there were more examples of sarcasm being used for other purposes such as a mechanism for pointing out the obvious or the absurd of which there were ten examples. The notions of ‘obvious’ and ‘absurd’ were classified under the same category because they act as antonyms, one being something that is normal or easily understood and the other as unreasonable and as such not easily understood. It is argued that there are many examples from the sitcom in this section due to the personality of Sheldon Cooper who shows a lack of understanding of social norms which results in his behavior being considered as absurd.

The importance of context from the perspective of Relevance theory was emphasized, context being the psychological construct of assumptions hearers develop during a conversation and the discordance between the hearer’s and the speaker’s assumptions which often leads to failure in detecting sarcasm as well as difficulties in understanding people’s attitudes, intentions and reading paralinguistic signs, especially in Sheldon’s case. It is important to note that, as previously mentioned, Sheldon’s failure in detecting sarcasm is one of the most recognizable traits of the show. The main purpose of any sitcom is to make the audience laugh and in this case, Sheldon’s character and his inability to understand sarcasm fulfills that purpose.

The aim of this thesis was to show that sarcasm is not used only in a negative context, in fact it is often used for various other purposes rather than as a mechanism of ridicule and mockery. As it was shown from the examples of this sitcom there were fewer instances of sarcasm being used for this purpose, and far more for pointing out the obvious or the absurd. Sarcasm can as well be used without any particular motive but to fulfill a humorous purpose and when used in a familiar environment is regarded as creative and beneficial for abstract thinking.

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10. Appendices

10. 1. About The Big Bang Theory³

“Leonard and Sheldon are brilliant physicists—geniuses in the laboratory but socially challenged everywhere else. Enter beautiful, street-smart neighbor Penny, who aims to teach them a thing or two about life. Despite their on-again, off-again relationship in the past, Leonard and Penny have finally gotten married. Even Sheldon has found a female companion, entering into a "relationship agreement" with neurobiologist Amy Farrah Fowler, and he recently took their relationship to the next level by marrying her after a long courtship. In their free time, Leonard and Sheldon enjoy fantasy role-playing games with their ever-expanding universe of friends, including fellow scientists Koothrappali, Wolowitz, and Wolowitz’s adorable microbiologist wife, Bernadette, who is adjusting to life with their two children.”

10. 2. The Big Bang Theory examples of sarcastic utterances

1) Series 01 Episode 12 – The Jerusalem Duality

Scene: The University cafeteria.

Sheldon: Personally, I would never use a transporter. Because the original Sheldon would have to be disintegrated in order to create a new Sheldon.

Leonard: Would the new Sheldon be in any way an improvement on the old Sheldon?

Sheldon: No, he would be exactly the same.

Leonard: That is a problem.

Sheldon: So, you see it too.

2) Series 02 Episode 02 – The Codpiece Topology

Scene: The university cafeteria.

Sheldon: You know how I know we’re not in The Matrix?

Leonard: How?

Sheldon: If we were, the food would be better.

Leslie (arriving): Hey, Leonard.

³ CBS. “The Big Bang Theory.” About The Big Bang Theory.

https://www.cbs.com/shows/big_bang_theory/about/

Leonard: Hey, Leslie.

Leslie: Hey, dummy.

Sheldon: Hello to you, insufficiently intelligent person.

Leslie: Ooh, rush me to the burn unit. Hey, Leonard, do you have a second, I need to ask you something.

3) Series 02 Episode 13 – The Friendship Algorithm

Scene: the University cafeteria

Kripke (arriving): Hey Hofstadter!

Leonard: Hey Kripke.

Kripke: Heard about your latest proton decay experiment, twenty thousand data runs and no statistically significant results. Very impressive!

Howard: What a jerk.

Raj: Don't feel bad Leonard, negative results are still results.

4) Series 02 Episode 07 – The Panty Pinata Polarization

Scene: at the apartment, Leonard, Sheldon, Ray and Howard are playing a game when Penny enters the apartment asking to watch America's Next Top Model show on their TV, and they proceed to comment the show.

Howard: Oh, look, that's the future Mrs. Wolowitz. No, wait, that's the future Mrs. Wolowitz. With her head in the lap of, what a coincidence. It's the future Mrs. Wolowitz.

Leonard: Yeah, and they can all move in with you and your mother, the current Mrs. Wolowitz.

5) Series 02 Episode 03 – The Barbarian Sublimation

Penny: I can't get the damned key out.

Sheldon: Well that's not surprising. That Baldwin lock on your door uses traditional edge mounted cylinders, whereas the key for your Volkswagen uses a centre cylinder system.

Penny: Thankyou, Sheldon.

Sheldon: You're welcome. Point of inquiry, why did you put your car key in the door lock?

6) Series 02 Episode 03 – The Barbarian Sublimation

Sheldon: There there. (Reluctantly) Would you prefer to wait in our apartment?

Penny: No Sheldon, I'd rather sit on this freezing cold floor sobbing like a three year-old.

Sheldon: Alright then. (Turns to go inside again.)

Penny: For God's sake! (Stomps into apartment.)

Sheldon: Just when I think I've gotten the hang of sarcasm.

7) Series 02 Episode 14 – The Financial Permeability

Scene: entering the lobby of the building.

Leonard: Hey, Penny. How was work?

Penny: Great. I hope I'm a waitress at the Cheesecake Factory for my whole life.

Sheldon: Was that sarcasm?

Penny: No.

Sheldon: Was that sarcasm?

Penny: Yes.

Sheldon: Was that sarca..

Leonard: Stop it!

8) Series 1, episode 2 – The Big Bran Hypothesis

Sheldon: I have to say, I slept splendidly. Granted, not long, but just deeply and well.

Leonard: I'm not surprised. A well known folk cure for insomnia is to break into your neighbor's apartment and clean.

Sheldon: Sarcasm?

Leonard: You think?

Sheldon: Granted, my methods may have been somewhat unorthodox, but I think the end result will be a measurable enhancement of Penny's quality of life.

Leonard: You know what, you've convinced me, maybe tonight we should sneak in and shampoo her carpet.

Sheldon: You don't think that crosses a line?

Leonard: Yes! For God's sake, Sheldon, do I have to hold up a sarcasm sign every time I open my mouth.

Sheldon: You have a sarcasm sign?

9) Series 01 Episode 14 – The Nerdvana Annihilation

Scene: The apartment.

Sheldon: Well, this sandwich is an unmitigated disaster. I asked for turkey and roast beef with lettuce and swiss on wholewheat.

Raj: What did they give you?

Sheldon: Turkey and roast beef with swiss and lettuce on wholewheat. It's the right ingredients but in the wrong order. In a proper sandwich the cheese is adjacent to the bread to create a moisture barrier against the lettuce. They might as well have dragged this thing through a car wash.

Leonard: I don't believe it.

Sheldon: I know, it's basic culinary science.

10) Series 01 Episode 14 – The Nerdvana Annihilation

Scene: The apartment.

Leonard: Some guy is auctioning off a miniature time machine prop from the original film and no-one is bidding on it.

Howard: A time machine from the movie The Time Machine?

Leonard: No, a time machine from Sophie's Choice.

11) Series 02 Episode 05 – The Euclid Alternative

Scene: Outside Penny's apartment.

Sheldon: (Knock, knock, knock) Penny, (knock, knock, knock) Penny, (knock, knock, knock) Penny...

Penny (opening door): Sheldon, what is it?

Sheldon: Leonard's asleep.

Penny: Thanks for the update (begins to close door.)

Sheldon: No, wait. You have to drive me to work.

12) Series 02 Episode 08 – The Lizard-Spock Expansion

Scene: A corridor at the university.

Howard: Oh, thank God, you're here.

Leonard: What's the emergency?

Howard: I got the Mars Rover stuck in a ditch.

Sheldon: Where?

Howard: On a dusty highway just outside Bakersfield. Where do you think? On Mars!

13) Series 02 Episode 08 – The Lizard-Spock Expansion

Scene: Outside Howard's front door.

Howard's Mother (voice): Howard, get the door!

Howard (voice): Really? Is that what you do when someone knocks? Thank you. I had no idea! (opening door) Hey, buddy. What brings you to my little slice of hell?

14) Series 02 Episode 10 – The Vartabedian Conundrum

Penny: You're going to go down swinging, huh? All right, well, we got your body lotion, your InStyle Magazine, your jewellery box.

Leonard: We're not... Where's my Bat Signal?

Penny: You have a Bat Signal?

Leonard: I did. It was right here. She must've... Oh, my God, we're living together.

Penny: Really? What was your first clue?

15) Series 02 Episode 06 – The Cooper-Nowitzki Theorem

Ramona: I know what's going on here.

Penny: Really? Well, then will you explain it to me?

Ramona: You're in love with Dr. Cooper.

Penny: Uh, yeah, no, that's not it.

Ramona: Don't try to deny it. He's a remarkable man, but you have to let him go.

Penny: Oh, gee, okay.

Ramona: I know it's hard, but he's a gift to the whole world, and we can't be selfish.

16) Series 02 Episode 07 – The Panty Piñata Polarization

Penny: Come on, I touched one onion ring.

Sheldon: And then you put it back, compromising the integrity of all the other onion rings.

Penny: Oh, honey, the buses don't go where you live, do they?

Sheldon: Look, Penny, I wish I could be more lenient with you, but since you've become a permanent member of our social group I have to hold you to the same standards as everybody else.

Leonard: Congratulations. You're officially one of us.

Howard: One of us, one of us.

Penny: Well, what a thrill.

17) Series 02 Episode 15 – The Maternal Capacitance

Scene: Penny's apartment

Leonard: You got alcohol?

Penny: Your mom still here?

Leonard: Yep.

Penny: Come on in. Wait, wait, she's not gonna come here looking for you, is she?

Leonard: Oh, relax. She took Sheldon to the hospital to get a brain scan.

Penny: Oh, my God. What happened?

Leonard: Nothing. Mother likes looking at brains and Sheldon likes getting his brain scanned.

Penny: Geez, what a fun couple.

18) Series 02 Episode 02 – The Codpiece Topology

Scene: The stairs. Sheldon is playing on his computer at the end of the long extension cord.

Sheldon: Given this situation, I have no choice but to withdraw my previous objections to your ill considered relationship with Leonard.

Penny: Oh, gee, well, thank you for that. But, um, I think for now Leonard and I are just going to stay friends.

Sheldon: No, that response is unacceptable to me.

19) Series 02 Episode 04 – The Griffin Equivalency

Raj: Speaking of untouchables, I've got great news for you guys. People magazine is having a reception this Saturday, and I managed to get you invited.

Howard: Oh, gee, thanks.

Raj: Oh, you're welcome. Of course, I couldn't get you into the VIP section, because, you know, that's for VIPs, and you guys are just, you know, Ps.

...

Raj: Hey, Leonard, did you see my limo downstairs.

Leonard: Yeah.

Raj: It's bigger than the house my grandfather grew up in.

Leonard: Terrific.

20) Series 02 Episode 09 – The White Asparagus Triangulation

Scene: at Penny's apartment.

Sheldon: Yes, see, of the handful of women Leonard's been involved with, she's the only one I have ever found tolerable.

Penny: Well, what about me?

Sheldon: The statement stands for itself.

Penny: Well, aren't you sweet?

21) Series 02 Episode 11 – The Bath Item Gift Hypothesis

Sheldon: Mmm, great news, Leonard, I've solved my Penny gift dilemma.

Leonard: Yippee.

Sheldon: You see, the danger was that I might under or over-reciprocate, but I have devised a foolproof plan. See, I will open her gift to me first and then excuse myself, feigning digestive distress. Then I'll look up the price of her gift online, choose the basket closest to that value, give it to her and then I'll return the others for a full refund.

Leonard: Brilliant.

Sheldon: It is, isn't it? Is it okay if I hide them in your room? The smell makes me nauseated.

22) Series 02 Episode 13 – The Friendship Algorithm

Scene: At Penny's apartment

Penny: Wait! How many questions are on this thing?

Sheldon: Only 211. Don't worry, in deference to you, I've kept them on a high school graduate reading level.

Penny: Thanks pal.

Sheldon: You got it, buddy.

23) Series 02 Episode 19 – The Dead Hooker Juxtaposition

Scene: the lobby of the building, Penny is meeting their new neighbour Alicia.

Alicia: Cool t-shirt.

Penny: Oh, yeah, I don't usually dress like this. I'm going jogging.

Sheldon: You don't jog.

Penny: I can start.

Sheldon: True, but the more likely explanation for your attire is that you're out of clean clothes again.

Penny: Thank you, Sheldon.
Sheldon: You're welcome, Penny.

24) Series 02 Episode 23 – The Monopolar Expedition

Leonard: I don't think I can go to the North Pole.
Sheldon: Okay, Leonard, I know you're concerned about disappointing me but I want you to take comfort from the knowledge that my expectations of you are very low.
Leonard: Yeah, that's very comforting.

25) Series 01 Episode 11 – The Pancake Batter Anomaly

Scene: The living room of the apartment. Leonard and Sheldon are playing the three dimensional chess game from the original Star Trek series.

Penny (knocking and entering): Hi guys.
Leonard: Hey!
Penny: Did you get my mail.
Leonard: Yeah, right here. How was Nebraska?
Penny: Oh, better than North Dakota! (Pause) I guess that joke's only funny in Nebraska.
Sheldon: From the data at hand you really can't draw that conclusion. All you can say with absolute certainty is that that joke is not funny here.
Penny: Boy, it's good to be back.

26) Series 02 Episode 04 – The Griffin Equivalency

Scene: Sheldon's office. He is making annotations on his board.

Sheldon: Oh, there's my missing neutrino. You were hiding from me as an unbalanced charge, weren't you, you little subatomic Dickens?
Leonard (entering with Howard): Hi Sheldon.
Sheldon: Here, look, look, I found my missing neutrino.
Howard: Oh, good, we can take it off the milk cartons.

27) Series 02 Episode 23 – The Monopolar Expedition

Sheldon: Do you remember the grant proposal I submitted to the National Science Foundation to detect slow-moving monopoles at the magnetic North Pole?
Leonard: Hardly a day goes by when I don't think about it.
Sheldon: Aw, how nice. Well, a space opened up at the last minute on the NSF expedition to the Arctic Circle.

28) Series 02 Episode 23 – The Monopolar Expedition

Sheldon: Good news, gentlemen, I have tentatively accepted...
All: Yeah! Woo-hoo!

Sheldon: ...the invitation to join the Arctic Expedition.

Leonard: It's not gonna be the same without you.

Howard: Godspeed.

Sheldon: Thank you, but your sentiments may be premature.